P-CHARGE

Pay-Charge

Charging station with billing system

The sustainable overall solution!

CHARGING WITH STATE-OF-THE-ART TECHNOLOGY

With Pay-Charge, we have launched a charging station for public and commercial applications: continuous charging from 3.7 kW to 22 kW. All present-day electric vehicles with a charge controller according to IEC 61851-22 can be charged. The charge regulator complies with state-of-the-art technology. The complete control technology is located in a weatherproof and sturdy housing. An aluminium base ensures steady positioning. Pay-Charge is also very suitable for wall box solutions (wall-mounted), e.g. in car parks.

HIGH LEVEL COMMUNICATION ALREADY INTEGRATED

Since the spring of 2014, the ISO/IEC standard 15118 has been governing the charging of electric vehicles with alternating current worldwide. While most manufacturers of electric cars and electric charging stations are still coming to terms with the new standard, we have already implemented it into our Pay-Charge charging station: The data exchange of the charging station with the charge controller of the electric car via the ISO/EIC 15118 Powerline Communication (PLC) for plug & charge and consumer management systems is an integral part.

A PLC modem makes an Ethernet connection available, which can be used to communicate with the Internet Protocol (IP), to implement activities such as authentication, certificate management and verification as well as changing the charging parameters and automatic payment processing. Error handling intercepts possible errors. This ensures ever safe and successful charging (incl. payment).

MID-certified meter

RFID reader

Available/vacant

Plug locked

Charging in progress

ADDITIONAL FEATURES

The charge regulator takes care of monitoring the internal hardware such as meter, user interface module or socket. A calibrated MID-certified meter shows the customer in kWh the amount of electrical energy he/she "filled" into the car. Payment is made without the use of cash by means of the proven and tested RFID reader using a contactless RFID card. To start charging, an activated RFID card merely needs to be held to the reader. Depending on the provider or operator, charging/activation and payment can also be carried out using an app by scanning a QR code at the charging point. The provider's/operator's back-end system allows communication with the charge regulator.

Normally, back-end providers work with/according to the OCPP communication protocol. Therefore, the IT interface supports OCPP in the 1.5 and 1.6 versions. This makes the integration into modern billing systems extremely easy. Furthermore, the charge regulator is smart grid compatible because of the standard OCPP function. It also has an integrated 4G modem and supports 2.5G Edge and 3G UMTS mobile networks. A SIM card is required for online operation; this is not included in delivery.

There are two USB ports: One to configure the charge regulator or for the installation of software updates. The second USB port enables connecting USB peripheral devices. A peer group mechanism makes it possible to distribute a set current within a group of charge regulators - keyword "load management". Moreover, internal temperature sensors are integrated, with which the charge current can be reduced independent of the ambient temperature as well as internal current sensors, to measure the load current. If an error occurs, a report with the OCPP protocol is sent to the back-end system.

The device is equipped with a DC 6 mA sensor, which uses an external current transformer for the detection of residual direct current in AC charging stations. Outside the charge box, merely a type A Earth-leakage circuit breaker (ELCB) is required because a type B (RCD) AC/DC sensitive residual current circuit breaker (RCCB) is already integrated, which has a second summation current transformer with an electronic unit and which, in addition to residual alternating current, also records smooth residual direct current.

The use of the optionally available base is recommended for stand-alone installations.

TYPE

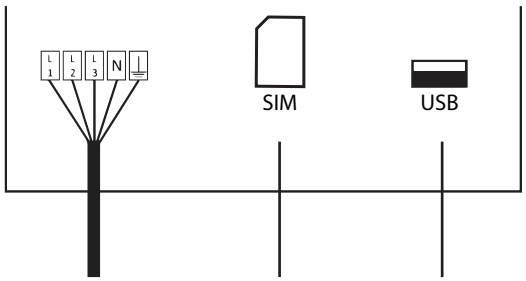
Item no.	Name	Charging capacity	Connection	Integrated control unit	RFID	Electric meter	Price plus VAT
PAY22L-0	**Pay-Charge**	Continuous 3.7 kW to a max. of 22 kW (3-phase)	Plug EN 62196	✓	✓	✓	€1834.20

Housing colour: RAL9003 (white), front middle section can be freely selected (basic version RAL6018)

ACCESSORIES (optional)

Item no.			Price plus VAT
261900-006	**Single base**	To enable stand-alone installation. Including accessories to mount the charging station.	€196
261900-007	**Double base**	Like 261900-006 however, with a second mounting plate on the opposite side for a second charging station.	€258

CONNECTION SCHEMATIC



TECHNICAL FEATURES

Charging capacity	max. of 22 kW *
Connection	3 x 230 V~, 16 / 32 A Charging socket type 2 with LED indicator
IP code	IP 54
Charging	according to IEC 61851-1 Mode 3
Charging initiated	by RFID by scanning a QR code (optional) integrated electric meter
Accessories	Mounting material Base (optional) Dimensions: 1294 x 330 x 222 mm (h x w x d) Weight: approx. 7.5 kg
Housing	UV-resistant plastic housing Dimensions: 403 x 278 x 171 mm (h x w x d) Weight: approx. 7 kg

* The ultimate charging capacity depends on the respective electric vehicle and the capacity supplied by the network operator.